CLAIMS

What is claimed is:

1. In a wireless telecommunication system, a method for providing service features for wireless calls, comprising the steps of:

accessing a packet data network for administering service features for a wireless call to or from a wireless terminal; and

accessing a home network, regardless of the location of said wireless terminal, for managing all service features in a central location, said home network being connected to said packet data network.

2. A method in accordance with Claim 1 wherein said home network is a home network associated with said wireless terminal.

3. A method in accordance with Claim 1 wherein said home network accessing step includes accessing a packet data feature server in said home network.

4. A method in accordance with Claim 3 wherein said home network accessing step further includes said feature server consulting a home location register database in said home network.

5. A method in accordance with Claim 3 wherein said home network accessing step further includes said feature server passing service feature control to a packet data feature server that is local to said wireless terminal.

6. A method in accordance with Claim 1 wherein said data network accessing step includes accessing said data network from a local network to which said mobile terminal is connected.

7. A method in accordance with Claim 1 wherein said data network accessing step and said home network accessing step are performed on a call-by-call basis.

8. A method in accordance with Claim 1 wherein said wireless call is a voice call.

9. A method in accordance with Claim 1 wherein said wireless call is a data call.

10. A method in accordance with Claim 1 wherein said home network is a wireless network.

11. A method in accordance with Claim 1 wherein said local network is a wireless voice or data network.

12. In a wireless telecommunication system, a system for providing service features for wireless calls, comprising:

a switch adapted to access a packet data network for administering service features for a wireless call to or from a wireless terminal; and

a packet data feature server located in a home network and adapted to manage service features for said wireless terminal, regardless of the location of said wireless terminal, said home network being connected to said packet data network.

13. A system in accordance with Claim 12 wherein said home network is a home network associated with said wireless terminal.

14. A system in accordance with Claim 12 wherein said home network is a home network associated with wireless terminals of plural wireless networks.

15. A system in accordance with Claim 14 wherein said feature server is further adapted to consult a home location register database in said home network.

16. A system in accordance with Claim 14 wherein said feature server is further adapted to pass service feature control to a packet data feature server that is local to said wireless terminal.

Sub B1

17. A system in accordance with Claim 12 wherein said switch is adapted to access said data network from a local network to which said mobile terminal is connected.

18. A system in accordance with Claim 12 wherein said switch is adapted to issue service feature queries on a call-by-call basis.

19. A system in accordance with Claim 12 wherein said wireless call is a voice call.

20. A system in accordance with Claim 12 wherein said wireless call is a data call.

21. A system in accordance with Claim 12 wherein said home network is a wireless network.

22. A system in accordance with Claim 17 wherein said local network is a wireless voice or data network.

23. A method for providing service features for wireless calls in a wireless telecommunication system, comprising the steps of:

in response to a call to or from a wireless terminal in a local network connected to a packet data network, sending a service feature request across said packet data network to a packet data feature server adapted to administer service features for said wireless terminal; and

returning a service feature response to said local network.

24. A method in accordance with Claim 23 wherein said feature server is located in a home network connected to said data network and is adapted to serve mobile subscribers in a single wireless network.

25. A method in accordance with Claim 23 wherein said feature server is located in a home network connected to said data network and is adapted to serve mobile subscribers in multiple wireless networks.

26. In a data network feature server, a method for providing service features for wireless calls, comprising the steps of:

storing service feature logic for a plurality of wireless terminals;

communicating service feature messages via a data network with a switch located in a wireless network, said switch being in communication with a wireless terminal whose service feature logic is maintained by said feature server; and

communicating, as necessary, service feature messages via a data network with said wireless terminal.

27. A method in accordance with Claim 26 further including steps of determining whether additional service feature information is required for said wireless terminal, and obtaining such information from a service feature information resource that is in communication with said feature server.

28. A method in accordance with Claim 26 further including steps of determining whether local feature service is required for said wireless terminal, and if so, passing service feature control to a local feature server associated with said wireless network.

29. A data network feature server for providing service features for wireless calls, comprising:

service feature logic for a plurality of wireless terminals;

means for communicating service feature messages via a data network with a switch located in a wireless network, said switch being in communication with a wireless terminal whose service feature logic is maintained by said feature server; and

means for communicating service feature messages via a data network with said wireless terminal.

B1

30. A data network feature server in accordance with Claim 29 further including control programming adapted to determine whether additional service feature information is required for said wireless terminal, and to obtain such information from a service feature information resource that is in communication with said feature server.

31. A data network feature server in accordance with Claim 29 further including control programming adapted to determine whether local feature service is required for said wireless terminal, and if so, to pass service feature control to a local feature server associated with said wireless network.

32. In a wireless network switch in a wireless network, a method for provding service features for wireless calls, comprising the steps of:

establishing a connection to a data network;

establishing a connection to a wireless terminal;

in respone to a call to or from said wireless terminal, sending a service feature request via said data network to a feature server located in a home network that is connected to or part of said data network; and

responding to service feature messages sent from said feature server.

Sub B1

33. A method in accordance with claim 32 further including a step of assisting, as necessary, in the routing of service feature messages between said wireless terminal and said feature server via said data network.

34. A wireless network switch in a wireless network for providing service features for wireless calls, comprising:

means for communicating with a data network;

means for communicating with a wireless terminal;

means responsive to a call to or from said wireless terminal for sending a feature request via said data network to a feature server located in a home network that is connected to or part of said data network; and

means for responding to service feature messages from said feature server.

35. A wireless network switch in accordance with Claim 34 further including means for routing service feature messages, as necessary, between said wireless terminal and said feature server via said data network.

36. In a wireless terminal adapted for communication in a wireless network, a method for providing service features to said wireless terminal, comprising the step of:

sending service features messages to, and receiving service feature messages from, a data network feature server located in a home network that is connected to or part of a data network, said service feature messages being sent to and received from said feature server via a switch in said wireless network.

37. A method in accordance with Claim 36 further including a step of establishing a data network connection with said feature server.

38. A method in accordance with Claim 37 wherein said step of establishing a data network connection to said feature server includes performing a look-up of a data network address for said feature server.

39. A wireless terminal adapted for communication in a wireless network, comprising:

a radio adapted to communicate over an air interface with a switch associated with said wireless network;

means for sending service features messages to, and receiving service feature messages from, a data network feature server located in a home network that is connected to or part of a data network, said service feature messages being sent to and received from said feature server via said switch associated with said wireless network.

40. A wireless terminal in accordance with Claim 39 further including means for establishing a data network connection with said feature server.

41. A wireless terminal in accordance with Claim 40 wherein said means for establishing a data network connection to said feature server includes means for performing a look-up of a data network address for said feature server.